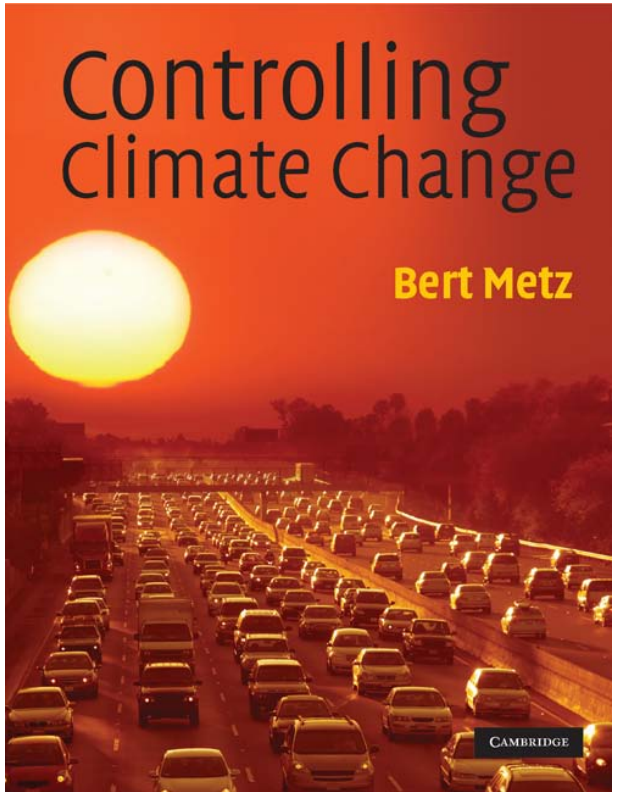
Controlling climate change after Copenhagen



Dr. Bert Metz

Former Co-chairman IPCC Working Group III

Fellow, European Climate Foundation

Pardee Center Seminar, Boston University, February 2, 2010

Copenhagen

- Inability to conclude 2 year negotiation process
- Acrimoneous process
- Political declaration (not unanimous) >> Copenhagen Accord
- Decisions to continue negotiations, aiming at completion at COP 16/ Mexico (Nov/Dec 2010)

Copenhagen Accord(1/3)

In	But	Consequence
Recognising 2 degree limit	•No reduction commitments to get there; • Targets/actions likely to get in far below top end	We are on track to 3-4 degrees; chances of staying below 2 degrees virtually zero
Review in 2015 with option to tighten global limit to 1.5 degrees	No strengthening of 2020 reduction commitments	This is lip service to vulnerable countries; has no practical impact; does not increase chance to stay below 2 degrees
Annex I countries to list their 2020 targets and non-Annex-I PART of their actions by Feb 1, 2010	•Terms “developed” and “developing”(as in Bali Action Plan) disappeared; •Accounting rules NOT uniform; nothing about surplus AAU; •No benchmark on how much they do	•Including “new developed countries” impossible; •Big loopholes on value of targets; •No pressure on maximizing reductions

Copenhagen Accord (2/3)

In	But	Consequence
Stressing importance of adaptation and provide about half of $30 billion in support 2010-2012	Money likely to be at least partly relabelled ODA	Vulnerable countries are getting financial support, while climate change impacts are getting much worse
“we support the goal to mobilise $100 billion by 2020 “; public and private money	•No commitment to deliver this money; •No mechanisms to generate funding; •No governance structure to manage effective disbursement	Unclear if there ever will be significant money
Copenhagen Climate Fund established	•Nothing how to fill the fund •Nothing on governance (only Panel to study resources)	Unclear if fund will ever be operational

Copenhagen Accord (3/3)

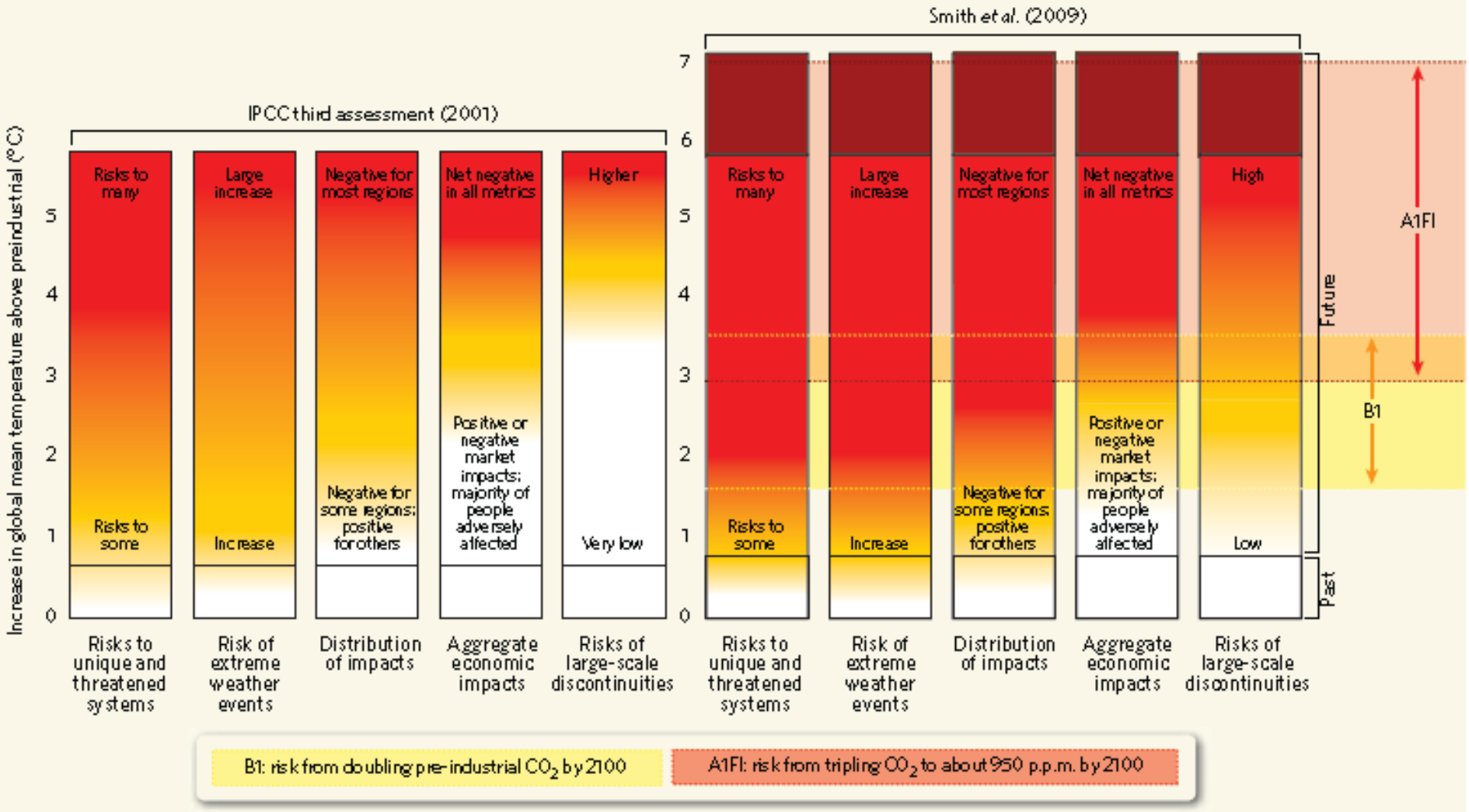
In	But	Consequence
Establish a REDD + mechanism”	Nothing established and no process to establish it; no rules	Fast start money will partly flow to countries to avoid deforestation; rest unclear
Establish a technology mechanism	No details Negotiations aiming at administrative approach	No effective mechanism to promote technology transfer
Develop market approaches	Nothing about reforming carbon market No hard caps> no market?	No agreement on CDM reform International carbon market uncertain
“provide incentives to developing countries to continue on a low emissions path”	Nothing about Low Carbon Growth Plans	No impact on producing low carbon development plans

CopenhagenDecisions

In	But	Consequence
Decision to continue AWG-LCA and request to deliver outcome by COP16	No statement on legally binding outcome; no process decisions; vague paragapah on Mexico mandate	Totally unclear if there will be serious negotiating process (also in light of acrymoneous debates in CPH)
Decision to continue AWG-KP and request to deliver outcome at COP16	Demands of EU, Japan, Russia , Australia to have legally binding outcome (=Protocol) from LCA ignored; vague paragapah on Mexico mandate	Kyoto Annex B countries may never agree with KP amendment or never ratify

WHY TAKING ACTION TO CONTROL CLIMATE CHANGE IS VERY URGENT

Climate change risks now seen as more serious

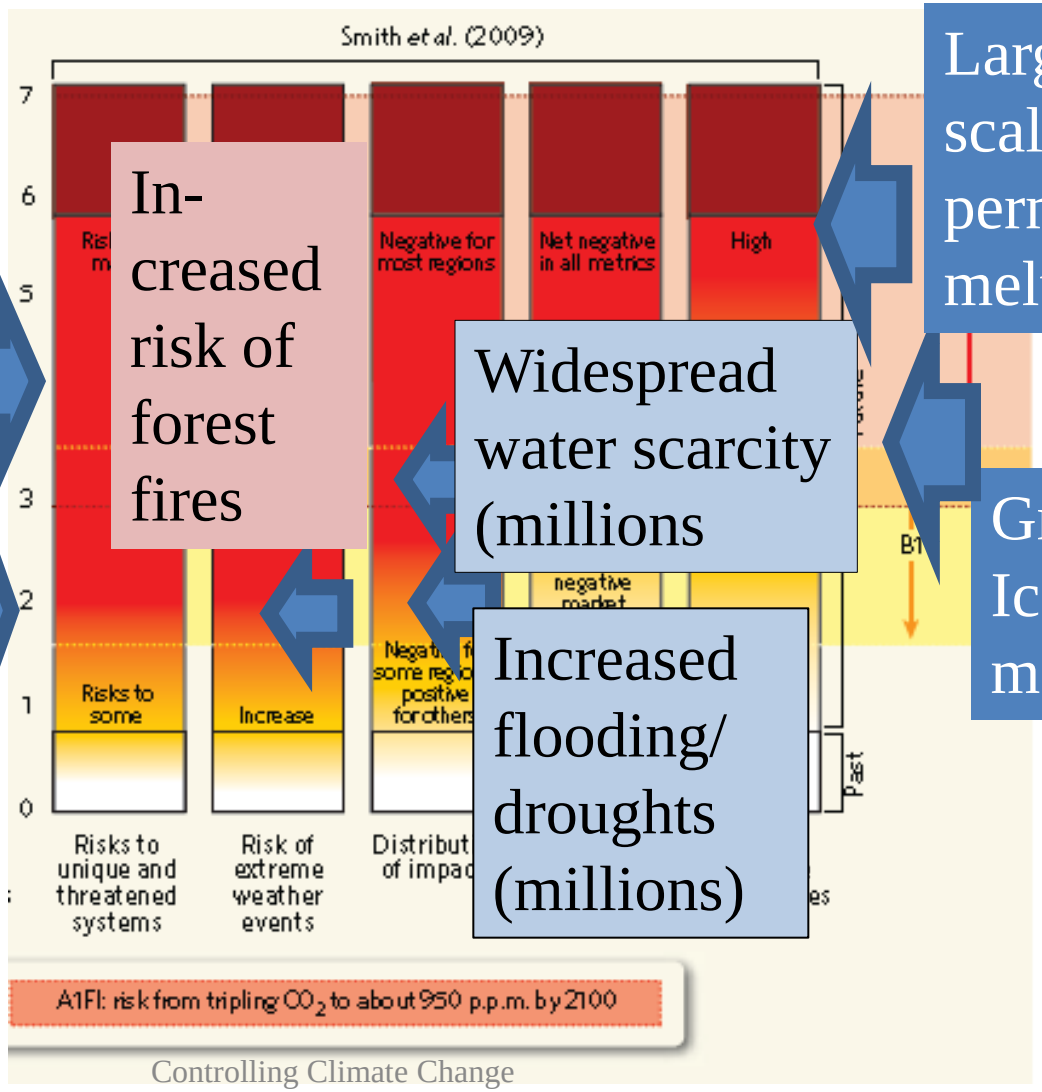


From Schneider, S., Nature, vol 458, April 30 2009, p 1104-1105

Climate change risks now seen as more serious

Crop productivity in temperate regions reduced

Crop productivity in tropics reduced



In-creased risk of forest fires

Widespread water scarcity (millions

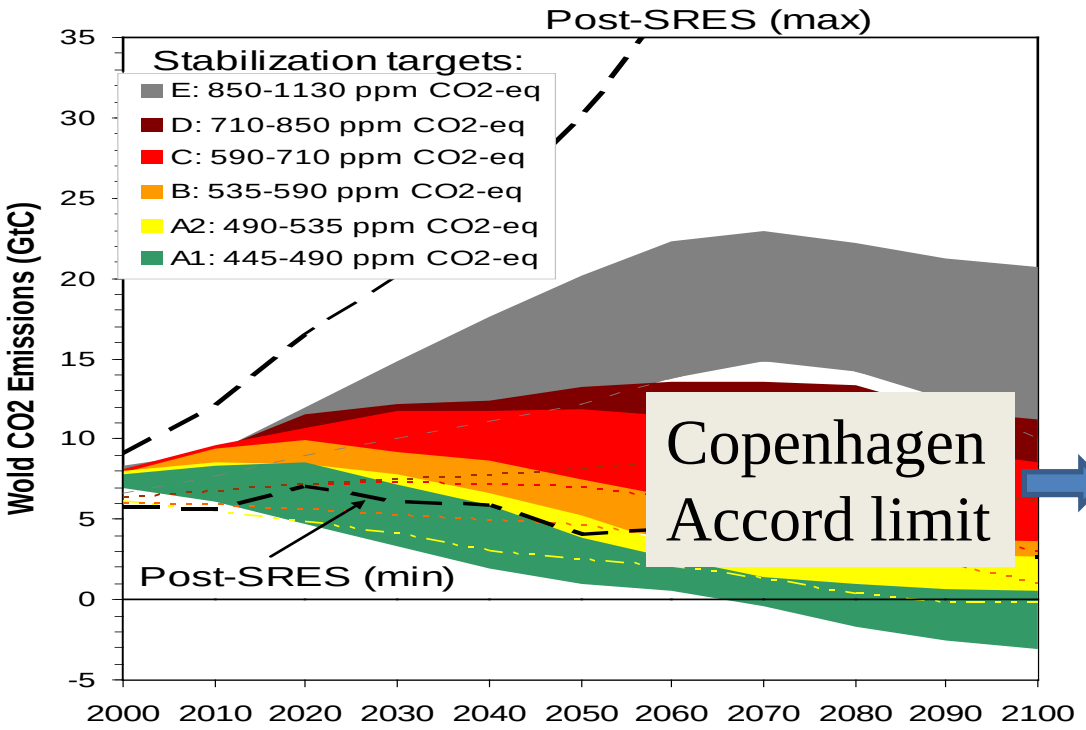
Increased flooding/ droughts (millions)

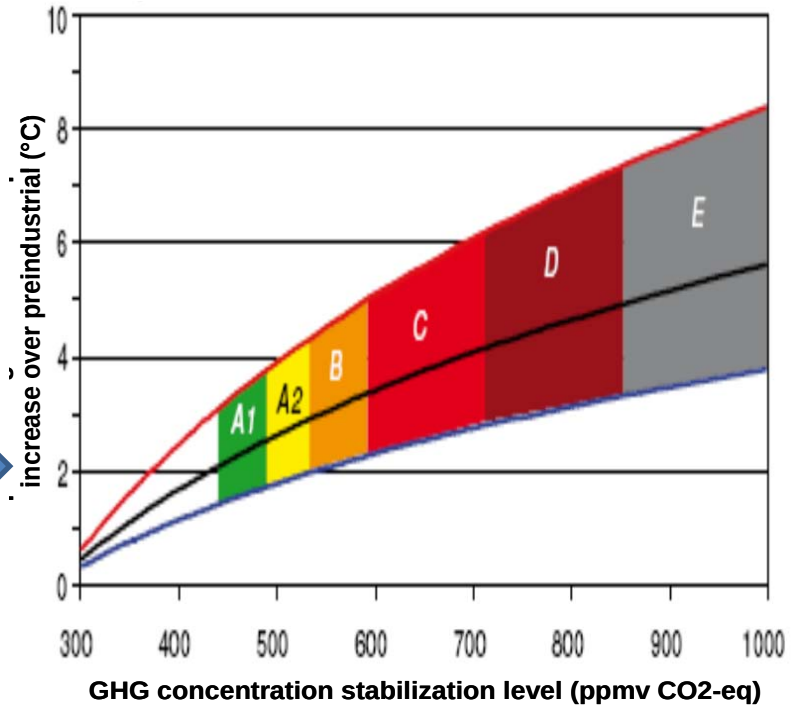
Large scale permafrost melt

Greenland Ice Sheet melts

From Schneider, S., Nature, vol 458, April 30 2009, p 1104-1105

Where to draw the line and what that implies for GHG emissions?

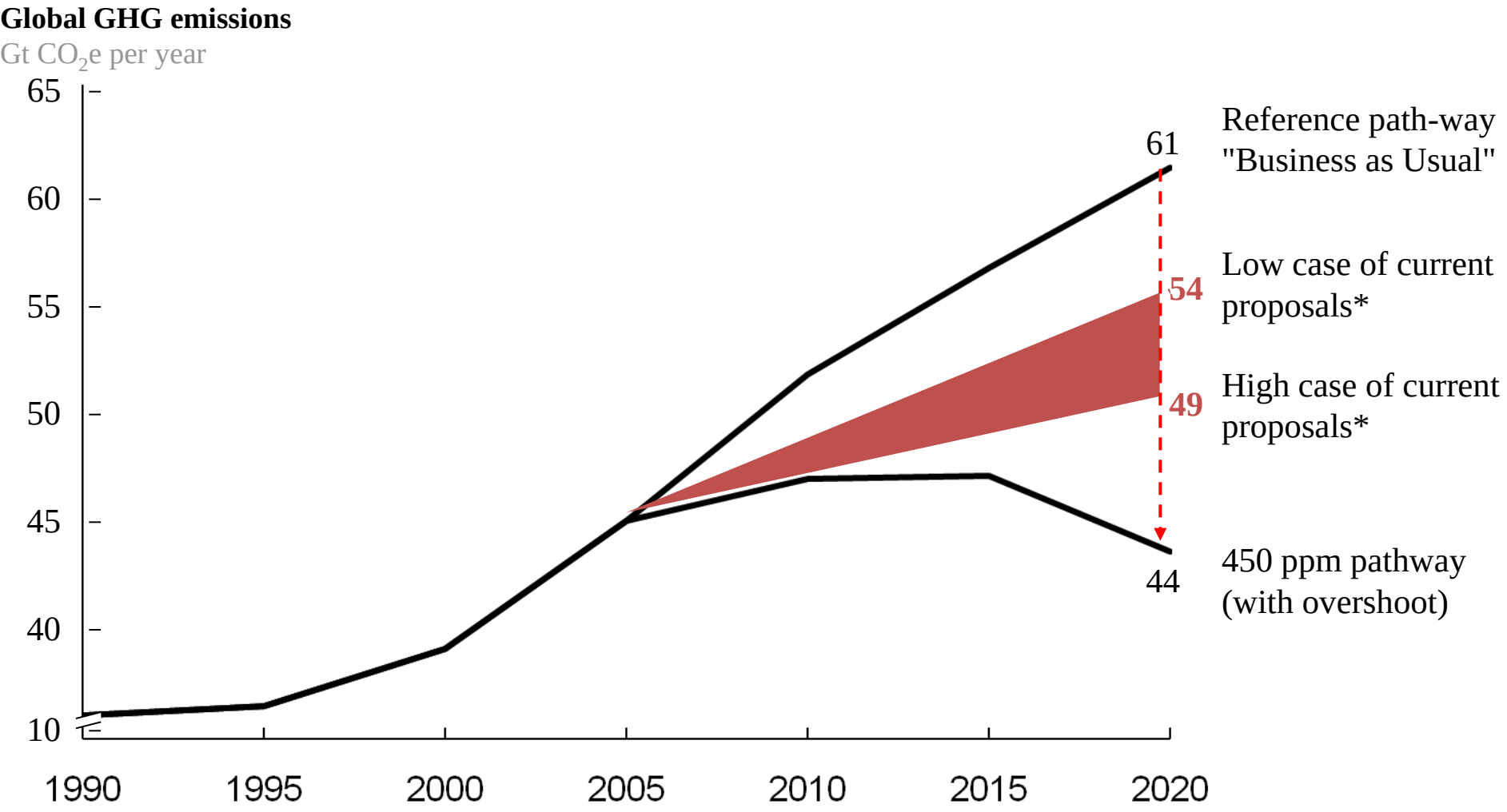




Mitigation efforts over the next two to three decades will have a large impact on opportunities to achieve lower stabilization levels

Stabilization level (ppm CO_2-eq)	Global Mean temperature increase at equilibrium (°C)	Year global CO_2 needs to peak	Year global CO_2 emissions back at 2000 level	Reduction in 2050 global CO_2 emissions compared to 2000
445 – 490	2.0 – 2.4	2000 - 2015	2000- 2030	-85 to -50
490 – 535	2.4 – 2.8	2000 - 2020	2000- 2040	-60 to -30
535 – 590	2.8 – 3.2	2010 - 2030	2020- 2060	-30 to +5
590 – 710	3.2 – 4.0	2020 - 2060	2050- 2100	+10 to +60
710 – 855	4.0 – 4.9	2050 - 2080		+25 to +85
855 – 1130	4.9 – 6.1	2060 - 2090		+90 to +140

Pre-Copenhagen proposals get us within 5 Gt of a 450 ppm pathway if nations deliver upper range of proposals



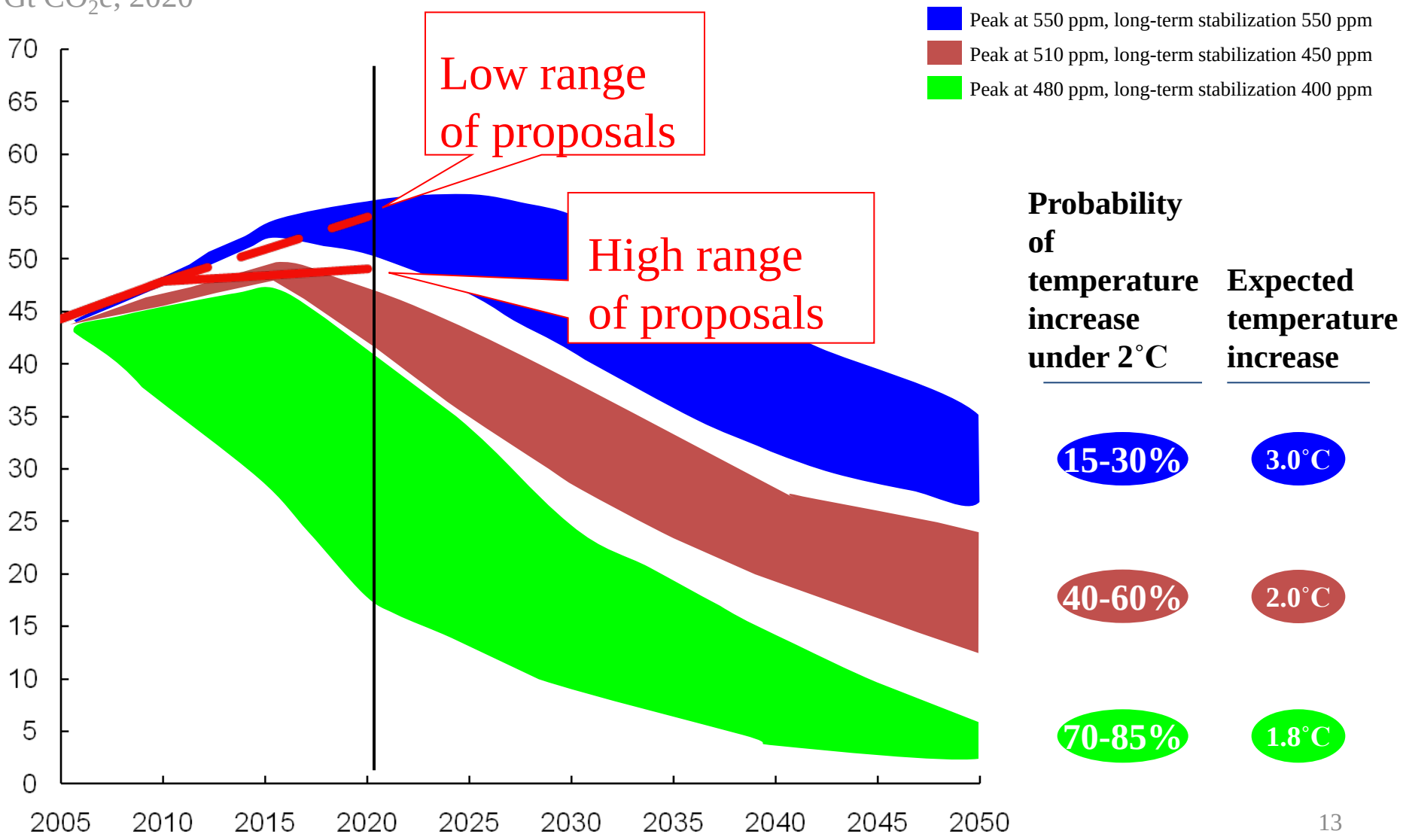
* E.g., 20% vs. 30% below 1990 emissions in the EU – taking into account the effect of the recession and lower expected emissions from deforestation and peat

Source: McKinsey Global GHG Abatement Cost Curve v2.0; Houghton; IEA; US EPA; den Elzen, van Vuuren; Project Catalyst analysis

But are putting us on a track to 3 degrees or more……

Global GHG emissions and pathways for GHG stability

Gt CO_2e, 2020



Probability of temperature increase under 2˚C	Expected temperature increase
15-30%	3.0˚C
40-60%	2.0˚C
70-85%	1.8˚C

Source: IPCC WG3 AR4; den Elzen, van Vuuren; Meinshausen; McKinsey Global GHG Abatement Cost Curve v2.0; Project Catalyst analysis

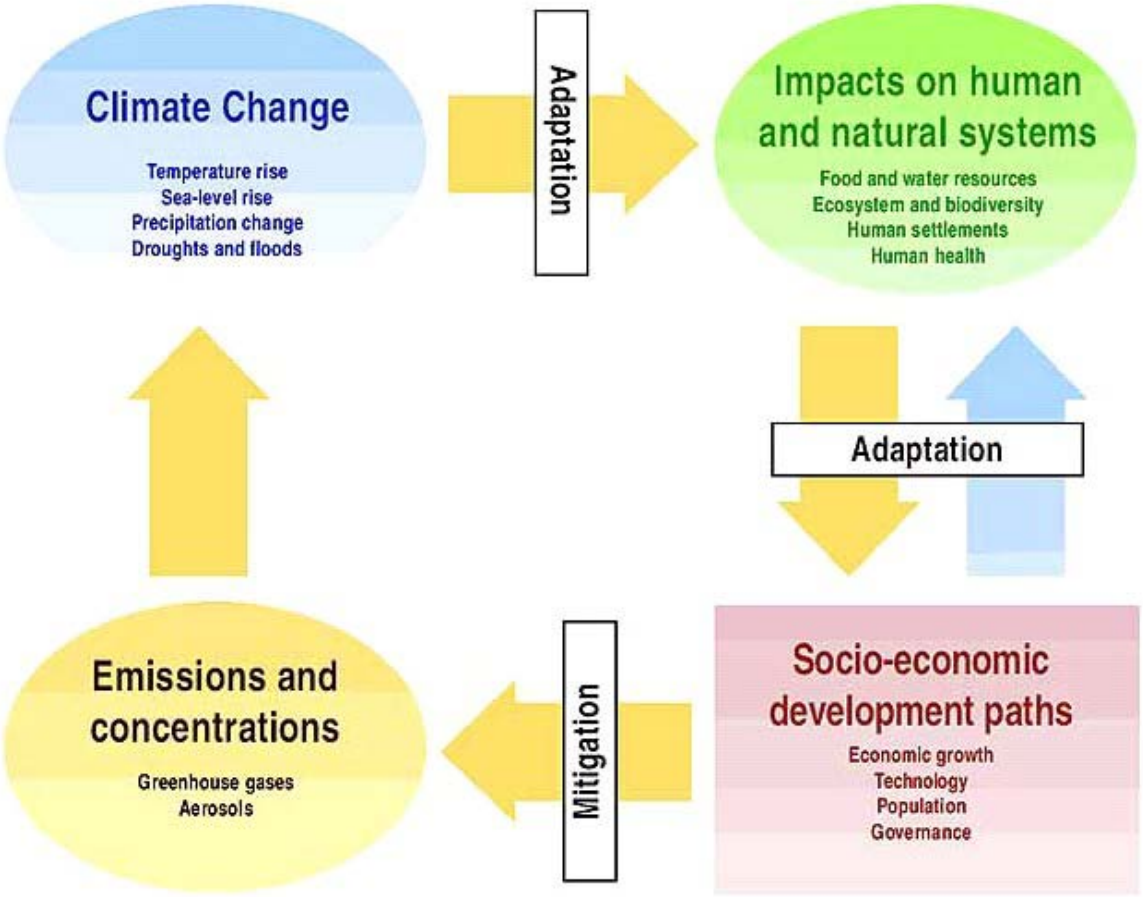
Implications for contributions by countries

Scenario category	Region	2020	2050
A-450 ppm CO_2 –eq[2)]	Annex I	-25% to -40%	-80% to -95%
	Non-Annex I	15-30% deviation from baseline in Latin America, Middle East, East Asia	Substantial deviation from baseline in all regions
B-550 ppm CO_2 -eq	Annex I	-10% to -30%	-40% to -90%
	Non-Annex I	Deviation from baseline in Latin America and Middle East, East Asia	Deviation from baseline in most regions, especially in Latin America and Middle East
C-650 ppm CO_2 -eq	Annex I	0% to -25%	-30% to -80%
	Non-Annex I	Baseline	Deviation from baseline in Latin America and Middle East, East Asia

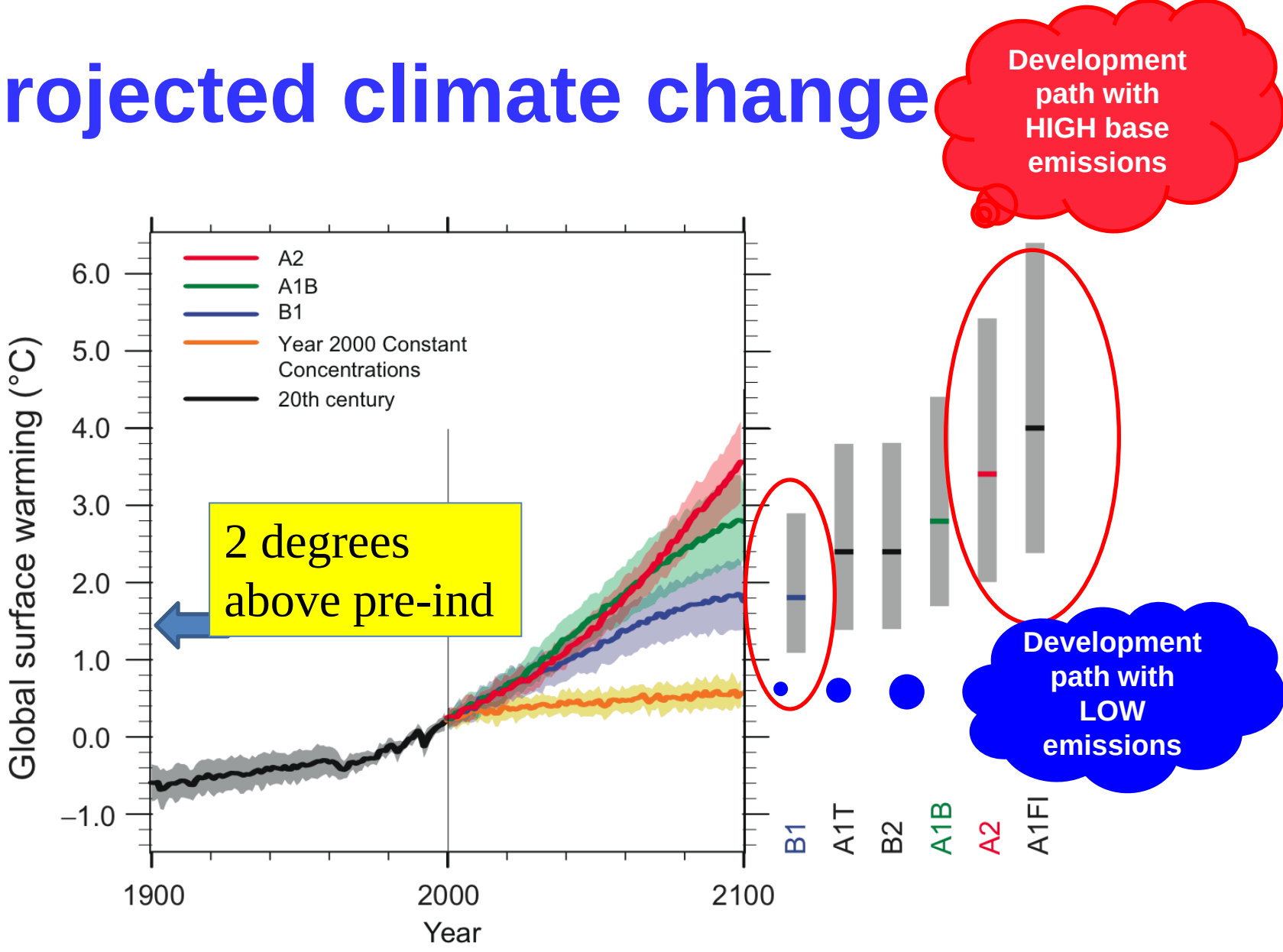
IPCC, AR4, den Elzen and Hoehne, 2008

DEVELOPMENT FIRST: WHY MAINSTREAMING CLIMATE CHANGE INTO DEVELOPMENT POLICY IS ESSENTIAL

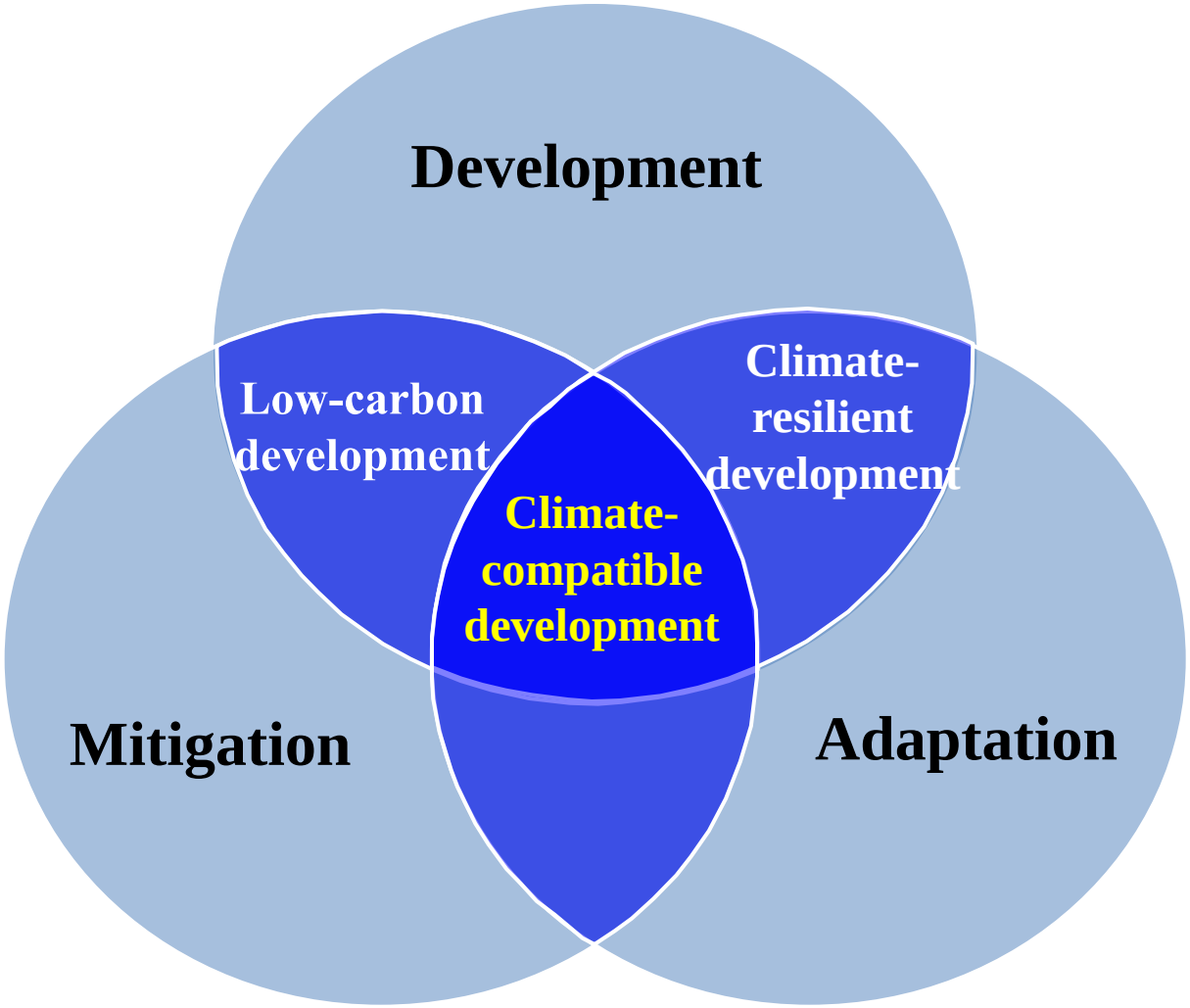
Development and climate change



Projected climate change



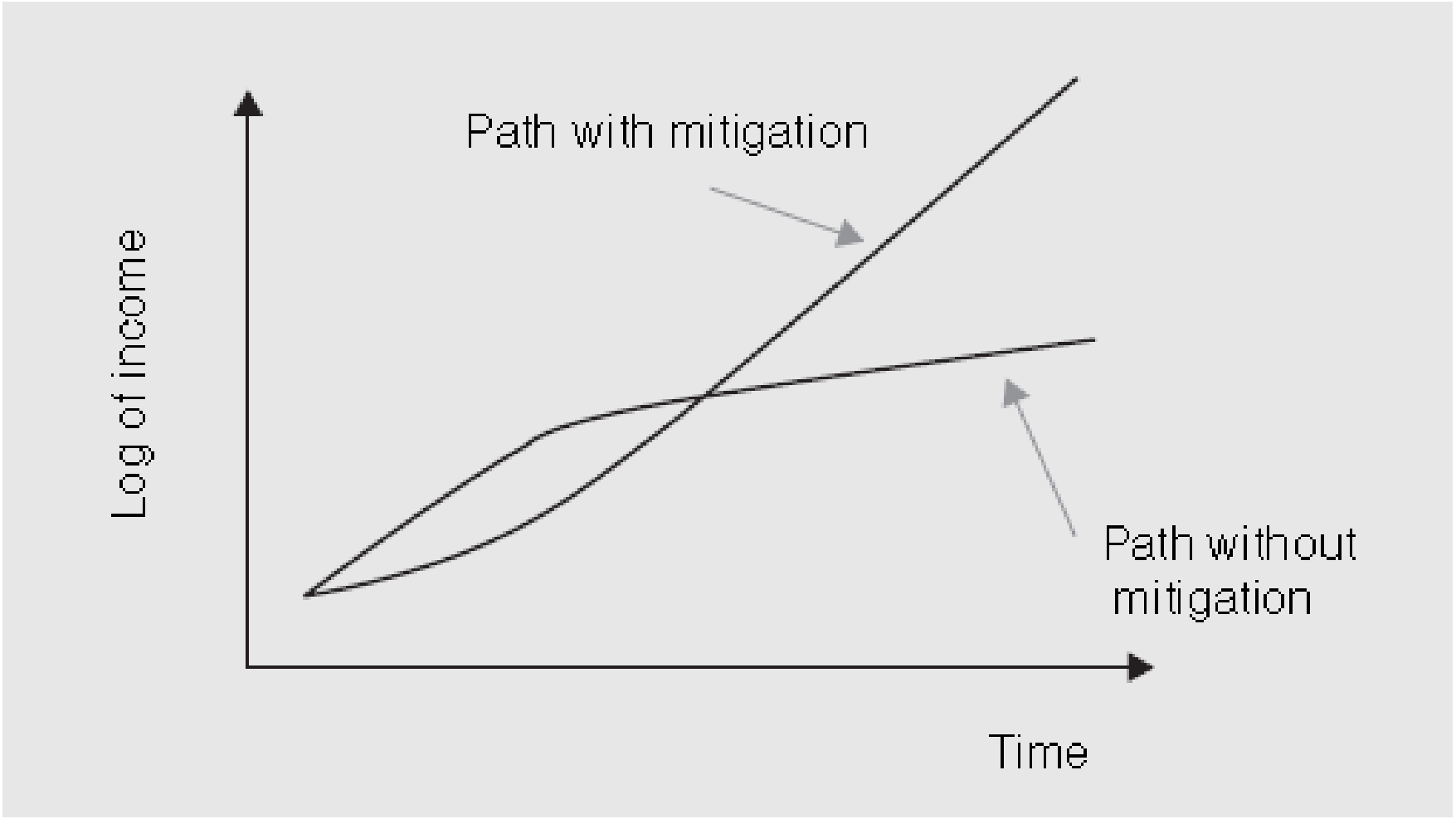
The response to climate change must be rooted in development



- Development is essential for eradicating poverty
- Climate change can undermine development
- Low carbon and climate resilient development ("climate compatible development") as the answer

Source: Project Catalyst

Low carbon development is economically attractive



Mainstreaming climate change in development policies

- Modernising industry to become competitive
- Improving energy security and reducing oil imports
- Providing clean and efficient transport to people
- Improving air quality to protect health
- Ensuring a strong and sustainable agricluture and forestry sector
- Greening macro-economic policy
- Providing electricity to the poor
- Developing coastal regions sustainably
- Building a good public health system
- Protect nature and biodiversity

How to change development paths?

- Develop capacity for change
- Start at the top
- Coordinate actions
- Climate proofing
- Prepare long term low carbon, climate resilient development plan (= green growth plan)

Low carbon development, examples

- China:
  - Renewable Energy Law and the Tenth Five-Year Plan: reduce electricity sector emissions by 5 % below BAU in 2020
  - Medium and Long Term Energy Conservation Plan:
    - reduce cement sector emissions by 15 % below BAU levels in 2020
    - reduce iron and steel sector emissions by 9% below BAU levels in 2020
  - Fuel efficiency standards for passenger cars, SUVs, and multi-purpose vans: reduce transportation sector emissions by 5% below BAU levels in 2020
- Brazil:
  - Program for Incentive of Alternative Electric Energy Sources (PROINFA): reduce electricity sector emissions by 14 % below BAU levels in 2020
  - Brazil's ethanol program (flex fuel vehicles and cost competitive ethanol): reduce transportation emissions by 18 % below BAU levels in 2020
  - No net forest cover loss by 2015
  - GHG emissions 20% below 2005 by 2020

Low carbon development, examples (2)

- India:
  - Reduce transportation sector emissions by up to 15 % below BAU levels in 2020
  - 20 MW solar PV capacity by 2020

- Korea:
  - National Green Growth Plan
  - GHG emissions 4% below 2005 by 2020

- South Africa:
  - National long term climate change strategy
  - GHG emissions 34% below BAU by 2020 and peaking between 2020-2025 (conditional)

- Indonesia :
  - GHG emission 26% below BAU by 2020
  - 0.5Mha/yr tree planting; 0.3 Mha/yr forest rehabilitation and stop illegal deforestation
- EU:
  - GHG emissions 80-95% below 1990 by 2050
- US:
  - GHG emissions 80% below 1990 by 2050

IMPLICATIONS OF COPENHAGEN FAILURE

What are the reasons for the Copenhagen failure?

Power has shifted

- US, China (plus India, Brazil, South Africa) now the real powers
- Their current interest is not to have binding deep GHG reductions
- China client states using process to counter developed country positions

UNFCCC process ineffective

- G77 interpretation of Bali Action Plan prevents effective outcome (blocks one new Protocol)
- Top down role of AWG Chairs (and COP presidency) blocked over entire 2 year process; chairs did not force a clash earlier
- Vulnerable countries support China and Saudi Arabia in exchange for money
- Blocked majority voting (by OPEC) paralyses process

US domestic politics

- Hypocricy on binding others and demanding total freedom for US
- Fixation on China and necessity to have trade sanctions in domestic climate law forces China into defensive attitude (no commitments, no verification)

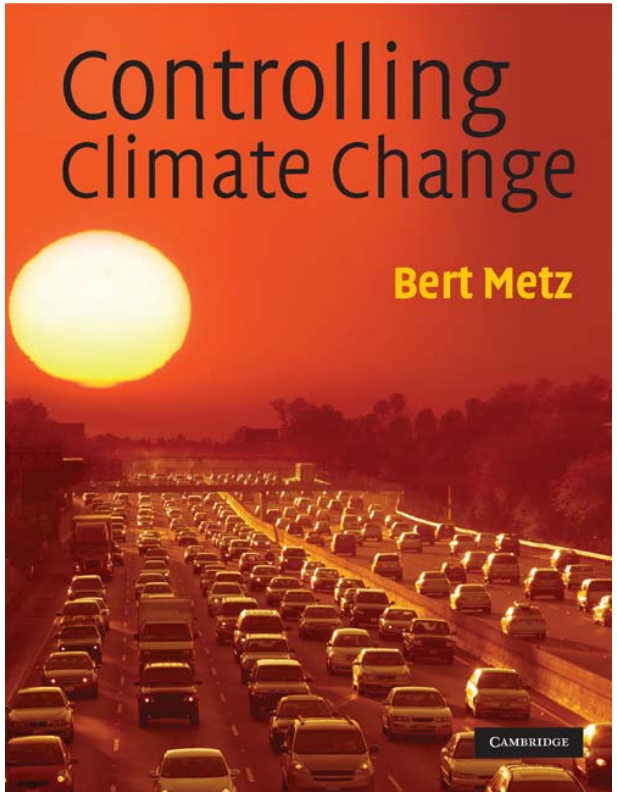
EU lacked vision

- Zigzagging on legal outcome
- Strategy too dependent on others (only -30% if others comparable, keeping long-term finance till concessions of G77)
- Not prepared for power play

What are possible implications?

- Unclear how UNFCCC process can deliver ambitious legally binding treaty by COP16
- MEF/G20 not effective if delinked from UNFCCC
- Focus may shift to like-minded country actions (REDD, Fast-Start Finance for adaptation and mitigation, policy coordination)
- National actions become more important, and trade measures more likely (self interest)
- Moving towards “low carbon prosperity” paradigm to unlock the situation

Thank you



bert.metz@europeanclimate.org

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